EURO GAUGE®

ELECTRIC CONTACTS TYPE PRESSURE GUAGE(MODULAR SYSTEM)

MODEL : P510 SERIES

WISE®

SERVICE INTENDED
The P510 Series designed for local reading of measured pressure and equipped with electrical contact block that allow all the combinations of contacts to be used.
The contact block is mounted on the dial.
The windows is fitted with a knob for external adjustment of the set points.

NOMINAL DIAMETER
100mm, 160mm

ACCURACY
±1.0% of Full Scale for pressure indication.

SCALE RANGE (kgf/cm², bar, kPa, MPa)
-76cmHg ~ 0 to 0 ~ 2000kgf/cm²

WORKING PRESSURE
Steady : 75% Full Scale
Over Range Protection : 130% of Full Scale

WORKING TEMPERATURE
Ambient : -20 ~ 65˚C
Fluid : -20 ~ 80˚C

DEGREE OF PROTECTION
IP65

Standard Features

PRESSURE CONNECTION
Stainless Steel (316SS), OPTION - Monel
Threaded entry, radial or back.

ELEMENT
Stainless Steel (316SS), OPTION - Monel
＜100bar : C Type Bourdon Tube
≥100bar : Helical Type Bourdon Tube

CASE & BEZEL RING
Stainless Steel (304SS)
Bayonet Type

WINDOW
Polycarbonate

MOVEMENT
Stainless Steel

DIAL
White Aluminium with Black Graduations

POINTER
Aluminium alloy, Black painted

PROCESS CONNECTION
3/8", 1/2" PT, NPT & PF

CONDUIT CONNECTION
M20×1.5P

OPTIONS
Liquid Filling
Electropolished Bezel Ring

ORDERING INFORMATION

BASE MODEL

P510 : ELECTRIC CONTACT TYPE PRESSURE GAUGE

NOMINAL DIAMETER

4 : 100mm
6 : 160mm

MOUNTING TYPE(Refer to Mounting Type & Dimension)

A : Bottom entry (Only available with diameter 100mm)
B : Bottom entry & Surface mounting flange (Only available with diameter 100mm)
G : Lower back entry (Only available with diameter 100mm)
N : Lower back entry & panel mounting flange (Only available with diameter 100mm)

CONTACT FUNCTION

" Refer to contact function table "

CONNECTION

D : 3/8"
E : 1/2"

CONNECTION TYPE

B : PF
C : PT
D : NPT
F : BSPT
G : BSP
Z : Other

UNIT

Refer to Pressure Unit & Range Table

RANGE

Refer to Pressure Unit & Range Table

DIAL COLOR

3 : 2 Colors
7 : 3 Colors

OPTIONS

O : None
1 : Accessories
2 : Liquid filling & Oil tight contact

P510	4	A	3	E	D	B	146	3	0

SAMPLE MODEL NUMBER

SNAP - ACTION CONTACTS

General

Electromechanical limit switches in pointer type measuring instruments are auxiliary current switches which open or close electrical circuits at set limit values by means of a contact arm which is moved by the actual value pointer.
The snap action contact is a mechanical contact for switching capacities up to 300W 50VA max.
Contact making will be delayed and or advanced in relation to the movement of the actual value pointer.
To closed the circuit, the contact pin of the movable contact arm is attracted in a jump by the permanent magnet fastened to the supporting arm shortly before the set value has been reached.
Due to the retention force of the magnet, snap action contacts are more resistant against shock and vibration.
The switching safety is increased by the increased contact pressure.
When the citcuit is opened, the magnet keeps the contact arm in its place until the restoring force of the measuring element exceeds the magnetic force, and the contact opens in a jump.

Specifications

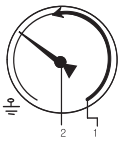
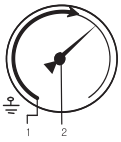
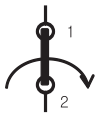
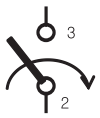
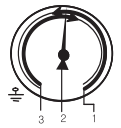
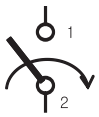
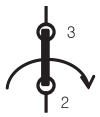
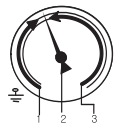
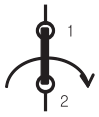
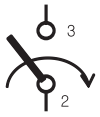
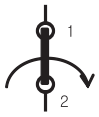
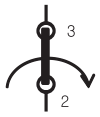
Maximum contact rating with non-inductive (ohmic) load	Electric contacts type pressure gauge model P510 series	
	dry gauges	liquid filled gauges
Maximum voltage	250V	250V
Current ratings:		
Make ratings	1,0 A	1.0 A
Break ratings	1,0 A	1.0 A
Continuos load	0,6 A	0.6 A
Maximum load	30W 50VA	20W 20VA
Material of contact points	Silver-Nickel Alloy (80% Ag / 20%Ni / 10μm) gold-plated	
Ambient operating temperature	-20℃...+70℃	
Max. no. of contacts	2	
Voltage test	Circuit / protective earth conductor - 2000 vac 1 minute	
	Circuit /circuit - 2000 vac 1 minute	

Recommended contact ratings with ohmic and inductive load

Voltage (DIN IEC 38) DC / AC	Electric contacts type pressure gauge model P510 series					
	dry gauges			liquid filled gauges		
	ohmic load		inductive load	ohmic load		inductive load
	DC	AC		DC	AC	
			cosφ 〉0.7			cosφ 〉0.7
V	mA	mA	mA	mA	mA	mA
220 / 230	100	120	65	65	90	40
110 / 110	200	240	130	130	180	85
48 / 48	300	450	200	190	330	130
24 /24	400	600	250	250	450	150

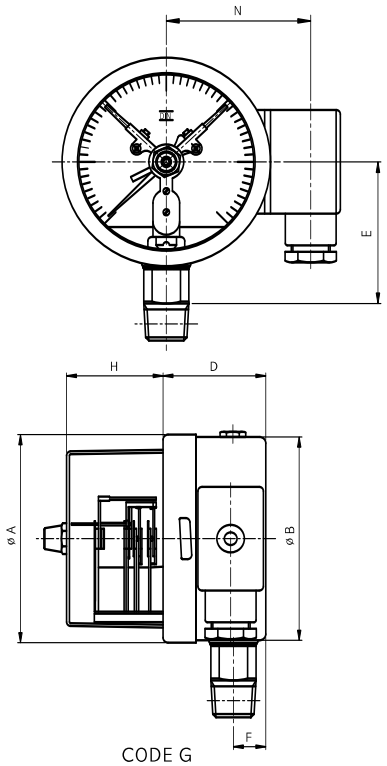
In order to ensure a high **switching reliability** of the contacts the **switching voltage should not be below 24V**, also taking environmental influences in the long term into account.

CONTACT FUNCTION TABLE

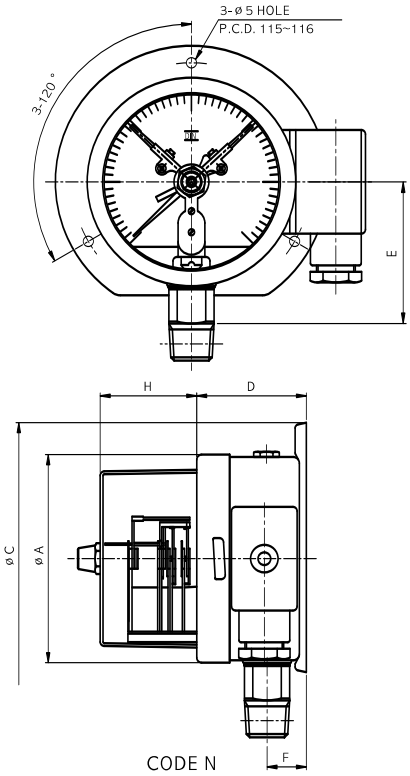
CODE	Wiring Scheme		Contact Function		Wiebrock Code No.	Remark
			1st Contact	2nd Contact		
Single Contact						
1	Contact make when pointer reaches set point (normally open - NO)				S/M-1	Normally use high alarm system
3	Contact make when pointer reaches set point (normally close - NC)				S/M-2	Normally use low alarm system
Double Contact - Common Circuit						
4	1st and 2nd Contact make when pointer reaches set point				S/M-11	Normally use high&hihigh alarm system
6	1st Contact make 2nd Contact break when pointer reaches set point				S/M-12	Normally use failsafe high & low alarm system
2	1st Contact break 2nd Contact make when pointer reaches set point				S/M-21	Normally use high & low alarm system
5	1st and 2nd Contact break when pointer reaches set point				S/M-22	Normally use low & lolow alarm system

P510 : TYPE OF MOUNTING

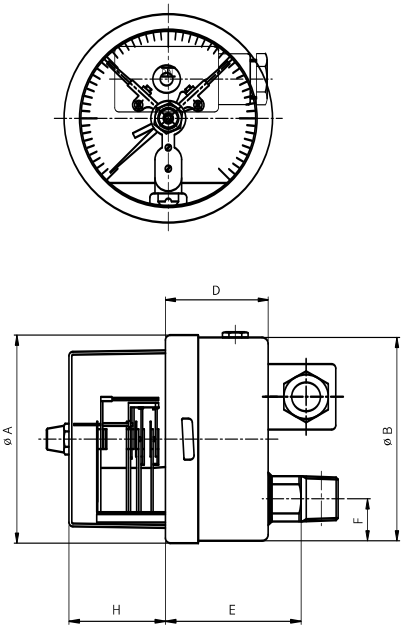
CODE A



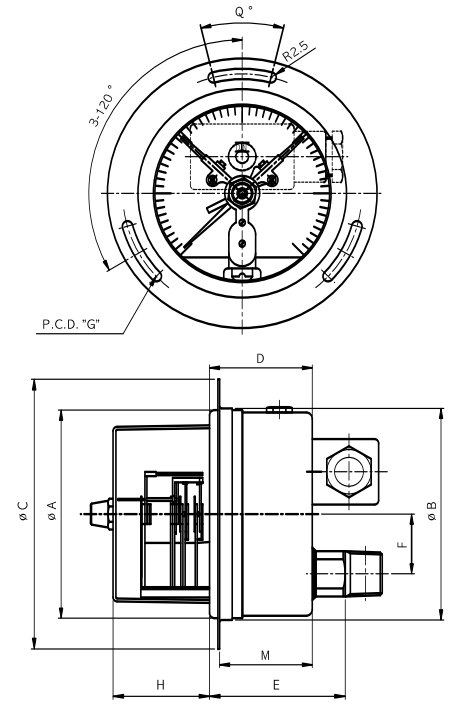
CODE B



CODE G



CODE N



Dimensions (mm)

DIAL SIZE	AVAILABLE CODE	A	B	C	D	E	F	G	H	N	Q
100	A	101.3	99		50	65	16		34.5	75	
	B	101.3		133	54.4	65	19.4	116	34.5		
	G	101.3	99		50	65	29		34.5		
	N	101.3	103.1	131	50	65	29	116	34.5		28
160	A	160.6	159		52.5	94	15.8		34	105	

PRESSURE UNIT & RANGE TABLE

RANGE & CODE	UNIT & CODE					100mm	160mm
	C : cmHg	B : kgf/cm²	H : bar	J : kPa	I : MPa		
026	-76~0	X	-1~0	-100~0	X	○	○
041	X	0~1	0~1	0~100	X	○	○
042	X	0~2	0~2	0~200	X	○	○
043	X	0~3	0~3	0~300	X	○	○
044	X	0~4	0~4	0~400	X	○	○
045	X	0~6	0~6	0~600	X	○	○
047	X	0~10	0~10	0~1000	X	○	○
050	X	0~15	0~15	X	0~1.5	○	○
051	X	0~20	0~20	X	0~2	○	○
052	X	0~25	0~25	X	0~2.5	○	○
054	X	0~35	0~35	X	0~3.5	○	○
055	X	0~50	0~50	X	0~5	○	○
057	X	0~70	0~70	X	0~7	○	○
058	X	0~100	0~100	X	0~10	○	○
059	X	0~150	0~150	X	0~15	○	○
062	X	0~250	0~250	X	0~25	○	○
064	X	0~350	0~350	X	0~35	○	○
066	X	0~500	0~500	X	0~50	○	○
068	X	0~700	0~700	X	0~70	○	○
070	X	0~1000	0~1000	X	0~100	○	○
075	X	0~2000	0~2000	X	0~200	○	○
027	X	-76~1	-1~1	-100~100	X	○	○
028	X	-76~2	-1~2	-100~200	X	○	○
029	X	-76~3	-1~3	-100~300	X	○	○
030	X	-76~4	-1~4	-100~400	X	○	○
031	X	-76~6	-1~6	-100~600	X	○	○
032	X	-76~10	-1~10	-100~1000	X	○	○
033	X	-76~15	-1~15	X	-100~1.5	○	○
034	X	-76~20	-1~20	X	-100~2	○	○

○ : AVAILABLE × : NOT AVAILABLE